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REMARKS

The Office Action of June 6, 2006, has been carefully considered.

Objection has been raised to the disclosure on the basis that Me(II) has not been defined and that the definition of Me(IV) is unclear.

This terminology is well known to those of ordinary skill in the art of ceramic formulation. Me(II)O designates bivalent metal oxides, and $Me(IV)O_2$ designates tetravalent metal oxides. Bivalent metals include calcium, but also include barium and magnesium which are found in the present examples. Tetravalent metals include cerium and tin which are also components exemplified in the present application.

The claims of record have been canceled, and replaced by new Claims 19 through 32. Claim 19 replaces Claim 1 and incorporates the recitations of original Claims 1, 4 and 7. Claim 1 thus recites that the composition contains at least 1% and less than 4% of calcium oxide, and optionally magnesium oxide and barium oxide. Further, the composition contains 0.5 to 3% of a tetravalent metal oxide which is cerium oxide and/or tin oxide. Silicon dioxide is not a metal oxide and is not taken into account when calculating tetravalent metal oxides.

Objection has been raised on the basis that the specification does not provide proper antecedent basis for the time and temperature ranges of Claim 9. The specification has now been amended on page 4 to provide antecedent bases for these ranges.

Objection has further been raised to the term "in particular" in the claims, and this term does not appear in the newly added claims.

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Claims 1, 3, 4, 6, 8, 9, 11 and 13 through 16 have been rejected under 35 USC 112, second paragraph, as being indefinite on several grounds.

Claims 1 and 3 have been objected to on the basis that it is unclear if Me(II)O includes calcium oxide because the composition can contain 1-4 wt% of calcium oxide. Claim 19 now specifically recites that the composition contains 1 to *less than* 4% of calcium oxide.

Claim 19 clarifies that the tetravalent metal oxides are cerium and/or tin oxide.

Claim 6 has been found to be indefinite. However, as Claim 19 permits the incorporation of CeO_2 and Tb_2O_3, this composition can be fluorescent and the inclusion of a further claim is not thought to be necessary.

Claim 8 has been replaced by new Claim 24 which has been written in independent form providing antecedent basis for all terminology.

Claim 15 has been replaced by new Claim 31, in which the K_2O content is adjusted to set the thermal expansion coefficient to a specific value range. The adjustment of thermal expansion coefficient by adjusting the K_2O content can be seen in the tables of the present specification.

Similarly, Claim 32 recites controlling the melting temperature of the opalescent glass ceramic by adjusting the amounts of components, which can also be seen in the tables of the present specification.

Withdrawal of this rejection is requested.

Claim 1 has been rejected under 35 USC 102(b) over Petticrew. As a claim of the scope of Claim 1 no longer appears in the application, withdrawal of this rejection is requested.

Claims 2 and 6 have been rejected under 35 USC 103(a) as obvious over Petticrew. As claims of this scope no longer appear in the application, withdrawal of this rejection is requested.

Claims 1 through 4, 6 and 7 have been rejected under 35 USC 103(a) over Brodkin et al.

Brodkin et al discloses very broadly dental ceramic compositions. However, compositions with specific thermal expansion coefficients which are now claimed are not disclosed specifically by Brodkin et al. With reference to Table III, all compositions disclosed have a thermal expansion coefficient greater than 13.5, and all compositions have an aluminum oxide content less than 13. In addition, fluoride is present in all compositions, but fluorides are not present according to the invention, in which all components are oxides.

Hence, Brodkin et al does not disclose or suggest the invention as claimed and withdrawal of this rejection is requested.

Claims 1 through 4, 6 through 8 and 10 through 16 have been rejected under 35 USC 103(a) over Holand et al or Frank et al. Both of these references are directed to an apatite glass ceramic with low expansion coefficient and high translucence. These compositions are thus not opalescent as are the compositions of the invention. The compositions of these references also contain fluoride, in contrast to those of the claimed invention, and can also contain TiO_2 and ZrO_2. Moreover, there is only one composition in Table I of these patents which is free of TiO_2 and ZrO_2, but this composition contains 19.7% Al_2O_3 which is outside of the presently claimed range. Table III of these patents discloses no composition which is free of TiO_2 and ZrO_2.

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As these references do not disclose or suggest the claimed invention, withdrawal of this rejection is requested.

The allowability of Claim 5 over the art has been noted, this claim now appearing as new Claim 21.

In view of the foregoing amendments and remarks, Applicant submits that the present application is now in condition for allowance. An early allowance of the application with amended claims is earnestly solicited.

Respectfully submitted,

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